

Serial No.: 09/343,517
Group Art Unit: 2663
Examiner: Derrick W. Ferris

Amendment to the Claims

1. (Canceled). Please cancel claim 1.

2. (Previously Canceled).

3-6. (Canceled). Please cancel claims 3 through 6.

7-23. (Previously Canceled).

24-26. (Canceled) Please cancel claims 24 through 26.

27. (Currently amended) A network element that provides a gateway between a local internet protocol (IP) device and a synchronous optical network to provide remote management of one or more remote IP devices, comprising:

a line driver element that communicates with the local IP device and receives IP packets with a destination address to one or more remote IP devices;

one or more routing tables for providing routing information for IP tunnels through the synchronous optical network to a destination network element with functionality to provide a gateway to the one or more remote IP devices, wherein the one or more routing tables assign network ports in the network element for routing to each of the one or more remote IP devices through the destination network elements;

an internet protocol tunneling layer network interface that translates IP packets received by the network element into a second protocol; and

a synchronous optical network port that transmits the translated IP packet over a data communication channel in overhead of synchronous optical frames in the synchronous optical network, wherein the network port was selected in response to the routing tables and destination address of the remote IP device.

28. (New) The network element in claim 27, wherein the second protocol is connection less network protocol (CLNP) and the synchronous optical network is a SONET network.

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29. (New) The network element of claim 27, wherein the destination network element with functionality to provide a gateway to the one or more remote IP devices includes a table indicating an IP address for each of the one or more remote IP devices.